

Amendments to the Drawings:

The attached replacement sheets of drawings include Sheets 1-6, representing a complete set of drawings. The sheets, which include FIGS. 1-6, replace all prior drawing submittals.

Attachments: Replacement sheets

REMARKS

This Amendment is responsive to the Office Action mailed on December 16, 2004. Claims 36, 39-53, and 56-70 are now pending in this application. Claims 36, 39, 50, 53, 56, 69 and 70 are amended herein.

The Examiner has objected to the drawings stating that the figures submitted on October 15, 2003 appear to be mismatched with the instant application. Replacement Sheets 1-6, including FIGS. 1-6, are included and replace all prior drawings. The drawings submitted herewith are believed to be in an acceptable condition. Withdrawal of the objection to the drawings is respectfully requested.

The Examiner has rejected Claims 36, 39-53, and 56-70 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. This rejection is respectfully traversed.

The Examiner has rejected Claims 36, 39-53, and 56-70 under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. This rejection is respectfully traversed.

The Examiner has indicated that Claims 36, 39-53, and 56-70 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. §112, second paragraph, set forth in the Office Action. It is believed that the present Amendment places all of the claims into immediate condition for allowance.

35 U.S.C. §112, First Paragraph

The Examiner has rejected Claims 36, 39-53, and 56-70 stating that the drawings and specification fail to describe any pressure force which will allow tension along the tool. The Examiner states that Figure 4 merely shows a screw 226 being screwed into an element 224, while compressing elements 102 and 230. The Examiner states that from the figures and the drawings it appears there is no tension anywhere, only compression at the local region between the form locking element 224 and the end face 230. The Examiner concludes that there would

have to be a gap between the ring 102 and the inner section 202 and no threads on the interior of the support ring to have any tension along the cutting tool.

The Examiner's rejection is respectfully traversed in view of FIG. 4 and Applicant's Detailed Description. The specification provides an adequate disclosure so that one skilled in the art could provide a device for processing web materials including an outer face that includes at least one end face on which a pressure force is applied to provide tension along the tool. Applicant's disclosure at page 15, lines 10-12 provides that, for example, a form-locking element 224 exerts a tensile force on the inner section 202 in the direction of the outer sleeve 208 parallel to the axis of rotation 84. For purposes of explaining the operation of the invention, Applicant is attaching hereto Exhibits A, B and C. Exhibit A is a photograph of portions of the claimed structure. Exhibit B is a sketch illustrating the tensile force provided in accordance with the invention. Exhibit C is a photograph of the inner section and outer sleeve stock, prior to being machined into their final configurations.

In Exhibit A, it can be seen that by tightening the screws 224 (yellow arrows), a compressive force (red arrows) is provided on the end face of the outer sleeve, which pulls on the inner section (inner core) to provide the claimed tensile force (white arrows). Applicant's disclosure at page 15, lines 5-9, explains that, for example, a form-locking connection 220 comprises a form-locking element 224 which is formed, for example, by a screw with a screw head 226. The screw head 226 makes a contact surface 228 available, by means of which a pressure force can be exerted on an end face 230 of the outer sleeve 208 in the direction of the inner section 202 parallel to the axis of rotation 84. As disclosed, the pressure force may be exerted by the contact of the screw head 226 via a contact surface 228 on the end face 230. The inner section 202 is free to expand to mate with the end face 249 of the outer sleeve 208 providing a tensile force on the inner section 202. This is demonstrated by the sketch of Exhibit B, which shows how, when screwed into the inner section 202, the screws 224 pull the inner section against the end face of outer sleeve 230 to impart a tensile force on the inner section. As can be seen in Exhibit C, the inner section is fabricated from a solid core, and the outer sleeve is fabricated from thick-walled cylinders into which the inner section is inserted. The inner section

can therefore be stretched along its axis within the outer sleeve. This stretching results from the tensile force depicted in Exhibits A and B.

The amount of movement between the inner section and the end face of the outer sleeve can be extremely small, and those skilled in the art would understand that a gap (which may also be extremely small) is provided between the inner section 202 and the outer sleeve 208 at the respective mating annular surfaces 247 and 249. Indeed, the provision of such a gap is specifically disclosed on page 16, lines 5-8 of Applicant's specification, which explains that the annular surface of the expansion member facing the inner section has clearance in relation to an end face of the inner section, in order not to hinder the expansion thereof when subjected to the tensile stress.

In view of the above, Applicant respectfully submits that the subject matter set forth in the claims is in full compliance with the written description requirement. Accordingly, withdrawal of the rejection under 35 U.S.C. §112, first paragraph, is respectfully requested.

35 U.S.C. §112, Second Paragraph

The Examiner has rejected Claims 36, 39-53, 56-70 stating that applying a compressive force on the outer sleeve of a cutting/embossing tool does not provide tension along the tool. The Examiner has concluded that the limitations do not comply with known pressure analysis of physics.

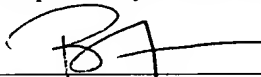
The Examiner's rejection is respectfully traversed in view of the above discussion in reference to the 35 U.S.C. §112, first paragraph rejection. Applicant's disclosure includes a means for providing tension along the tool. The inner section 202 is allowed to and does expand relative to a fixed ring surface 218 of the outer sleeve 208 parallel to an axis of rotation 84.

The Examiner has indicated that Claims 36, 39-53, 56-70 would be allowable if rewritten or amended to overcome the rejections under 35 U.S.C. §112, second paragraph, set forth in this office action. Claim 36 has been amended to clarify that the outer sleeve includes at least one end face on which a pressure force is applied to provide tension along *an inner section of* the tool. With this amendment, the claim is clear that the inner section is tensioned, as shown for example in attached Exhibits A and B. Clarifying amendments have also been made to claims

39, 50, 53, 56, 69 and 70. Accordingly, the present claims are believed to be in immediate condition for allowance.

Reconsideration and allowance of each of the claims is respectfully requested. If there are any remaining issues that need to be addressed in order to place this application into condition for allowance, the Examiner is requested to telephone Applicant's undersigned attorney.

Respectfully submitted,



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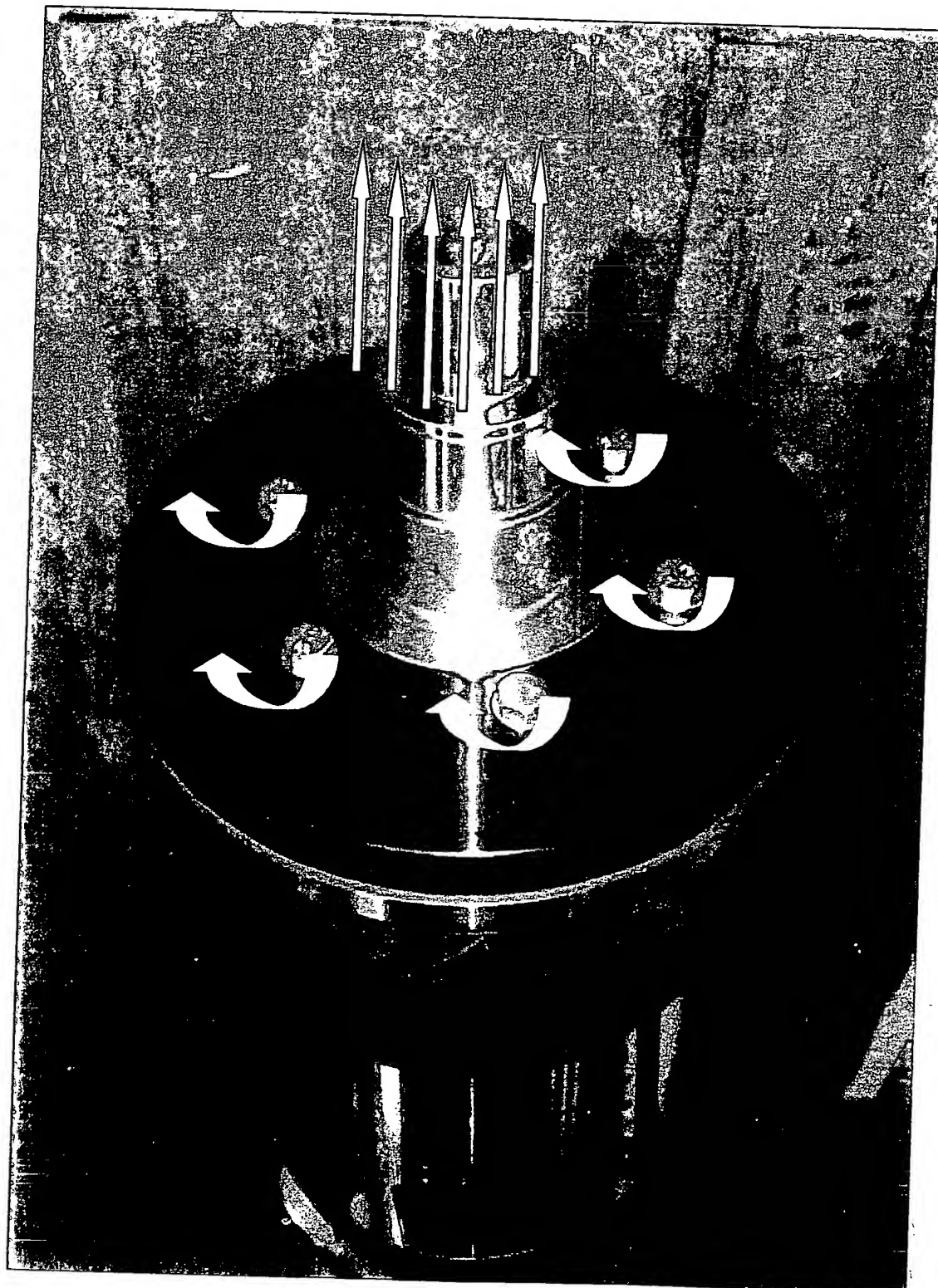


EXHIBIT A

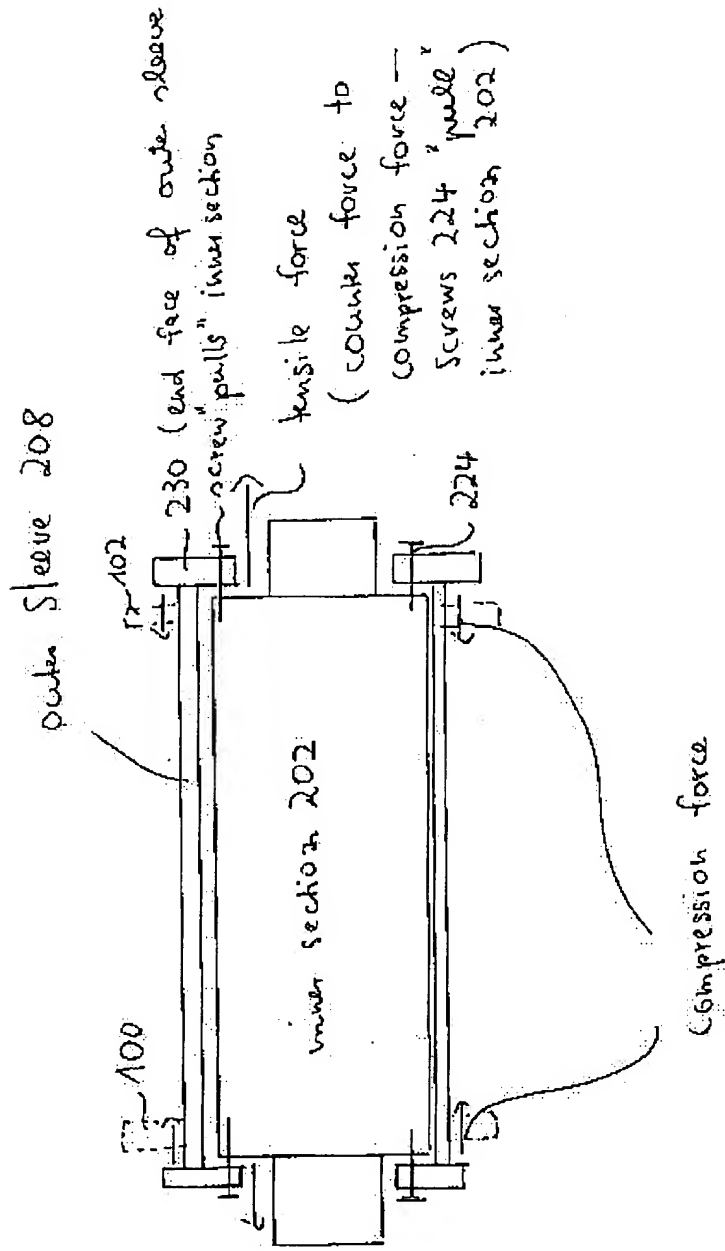
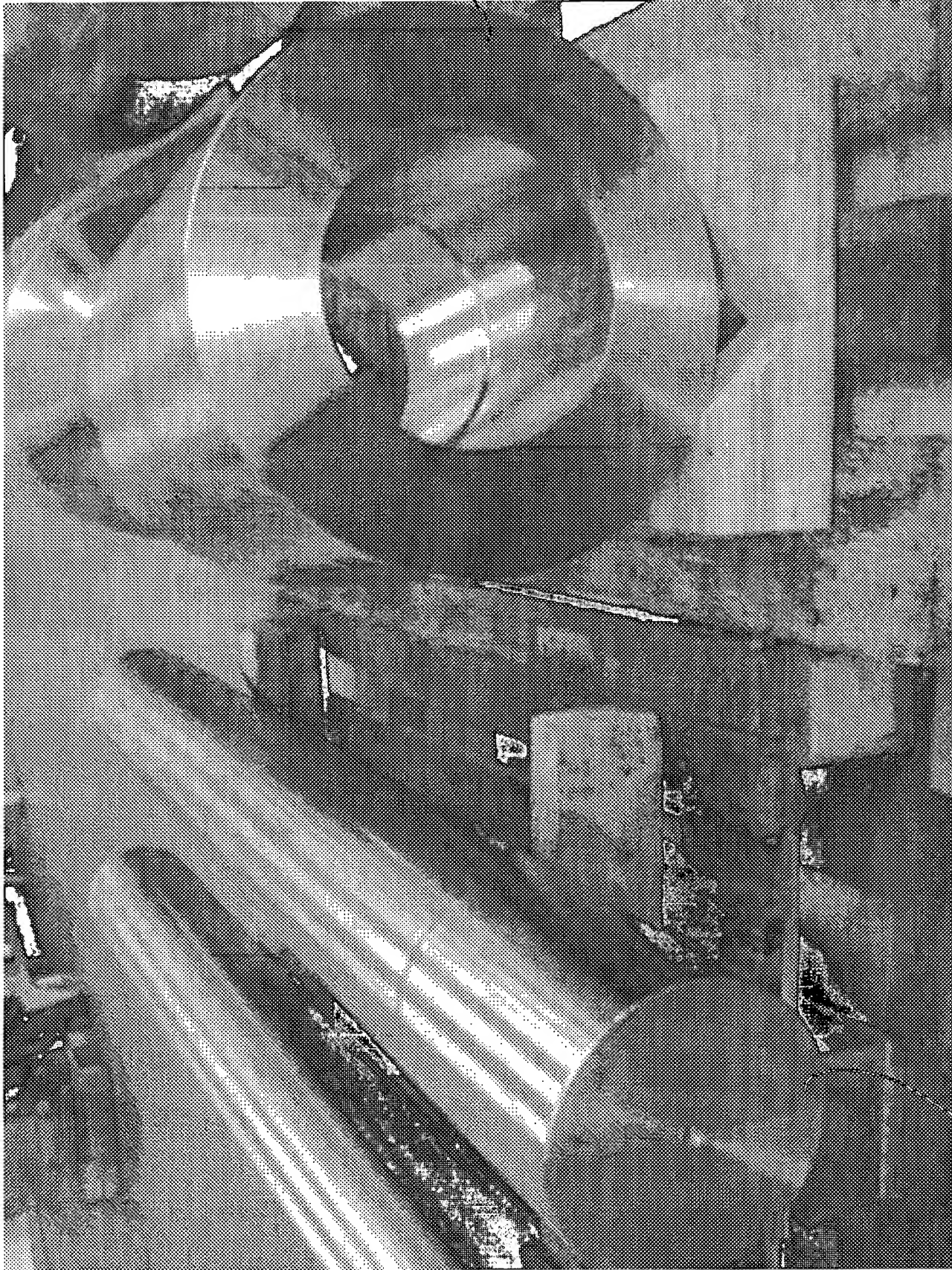


EXHIBIT B



outer
sleeve
(prior to
final
fabrication)



Inner section
(prior to final fabrication)

Exhibit C